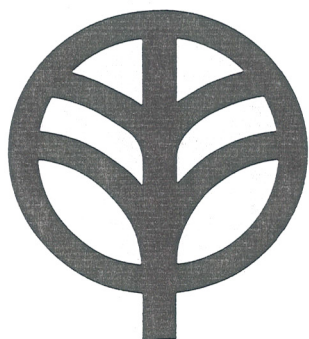




KENWOOD
HI/FI STEREO COMPONENTS

SERVICE MANUAL

KT-400 (KT-400L)

An item of adjustment is written in three languages — English, French and German.

Un article sur réglages est écrit en trois langues, Anglais, Français et Allemand.

Ein Artikel der Abgleich wird auf drei Sprachen, Englische, Französisch und Deutsch geschrieben.

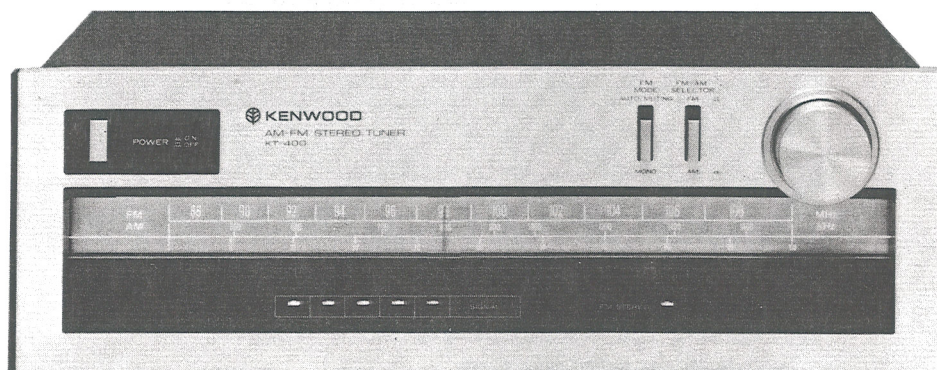


PHOTO is KT-400

AM-FM STEREO TUNER

KT-400(L)

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EXTERNAL VIEW.....	3
INTERNAL VIEW.....	4
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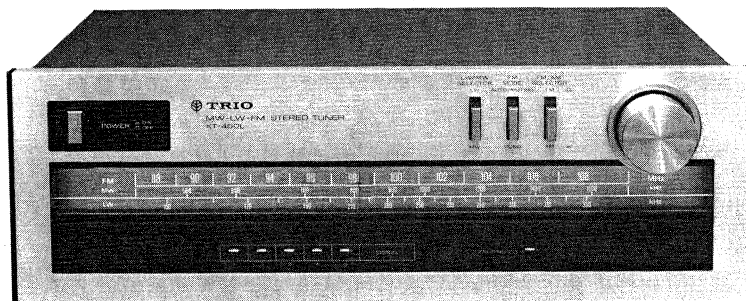


PHOTO is KT-400L

Note:

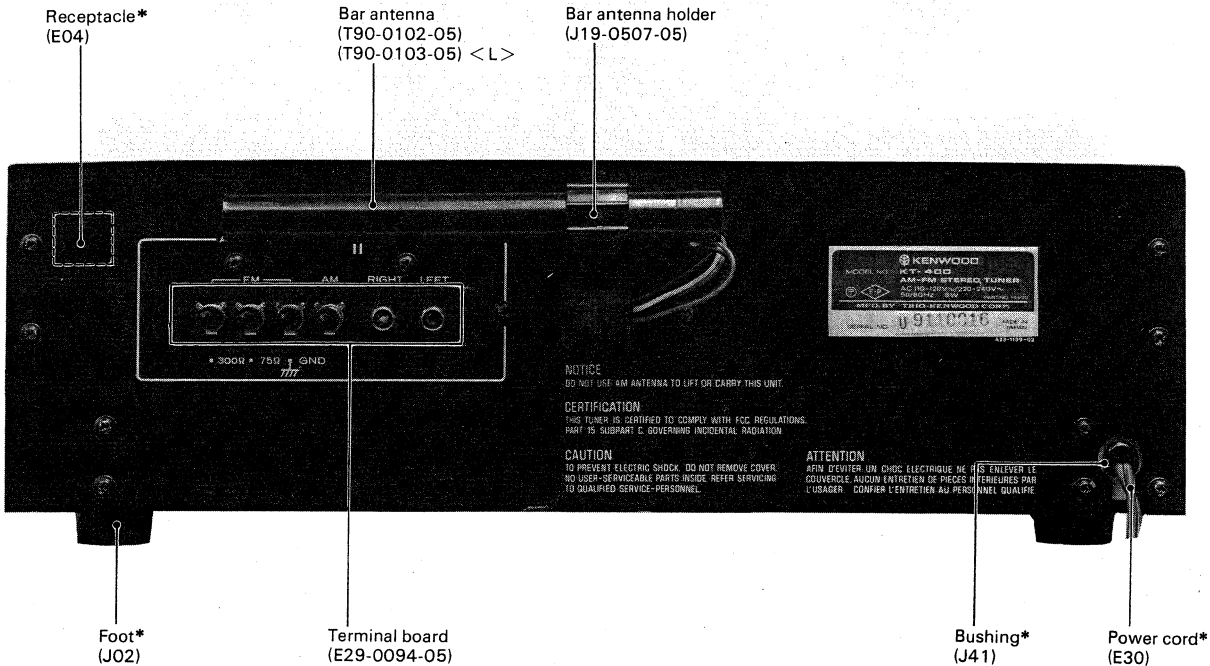
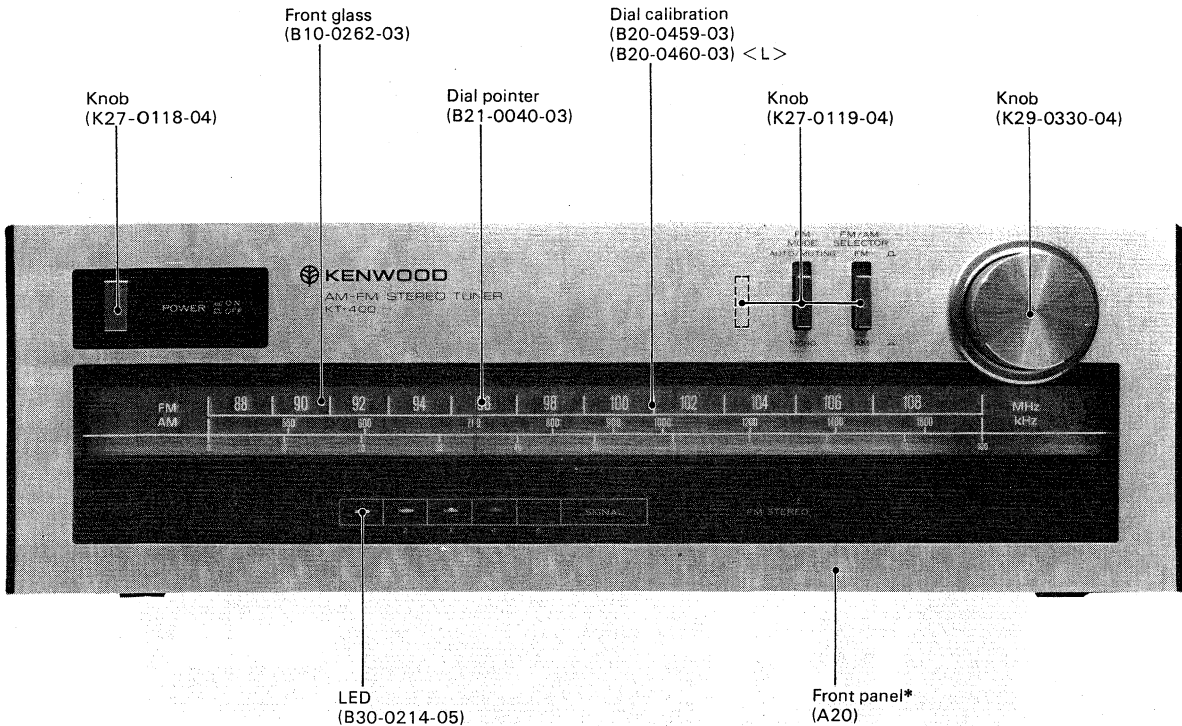
This manual is for the KT-400 and KT-400L. Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S. (K) standard for the KT-400, the Europe and Scandinavia (E) Standard for the KT-400L, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variation through use of parts list.

Region	Code
U.S.A.....	K
Canada.....	P
PX.....	U
Australia.....	X
Europe and Scandinavia.....	E
England.....	T
South Africa.....	S
Other Areas.....	M

There is no plan for producing units of S type.

KT-400(L)

EXTERNAL VIEW



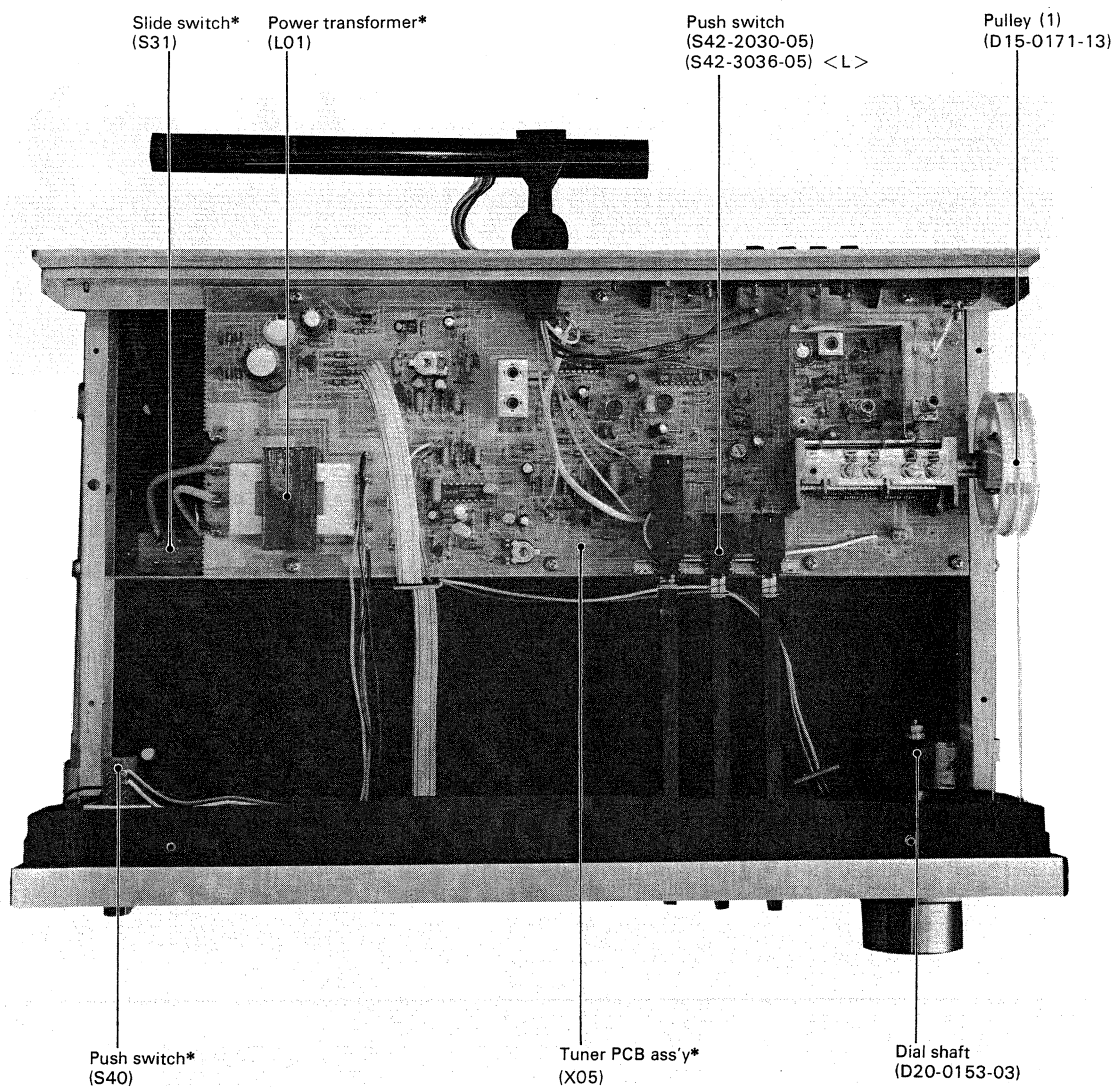
< L >..... KT-400L

* Refer to parts list.

PHOTO is KT-400.

KT-400(L)

INTERNAL VIEW

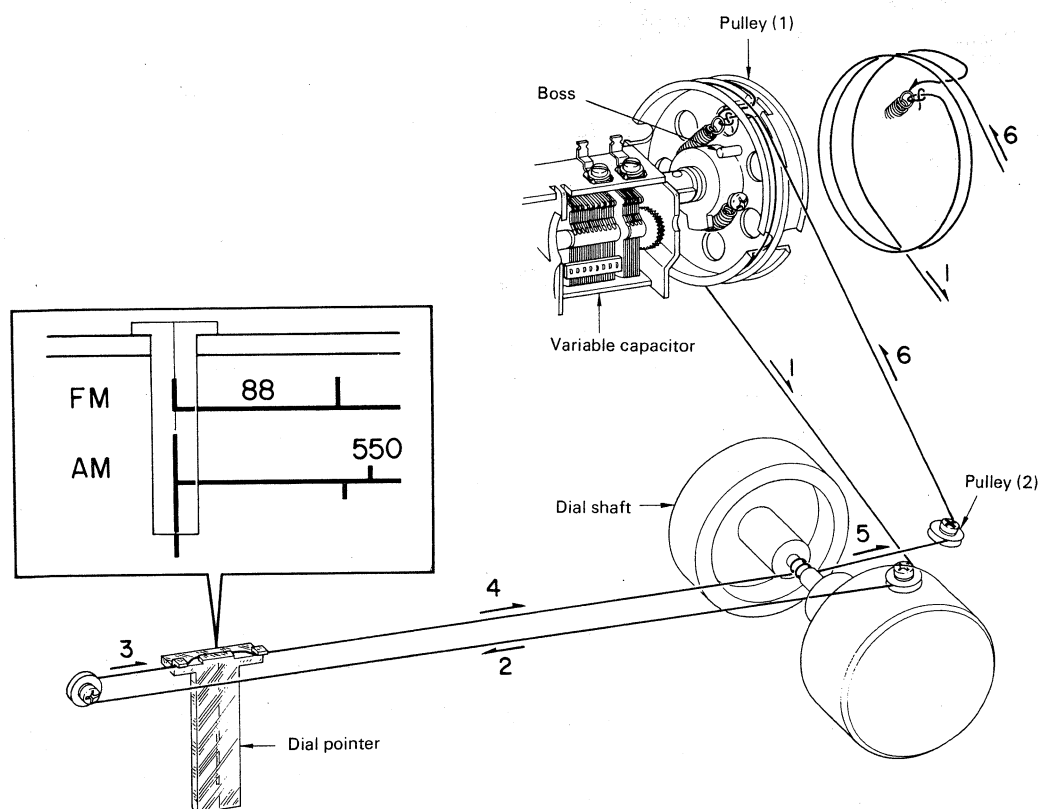


<L> KT-400L

* Refer to parts list.

PHOTO is KT-400L

DIAL COAD STRINGING



DIAL CORD STRINGING

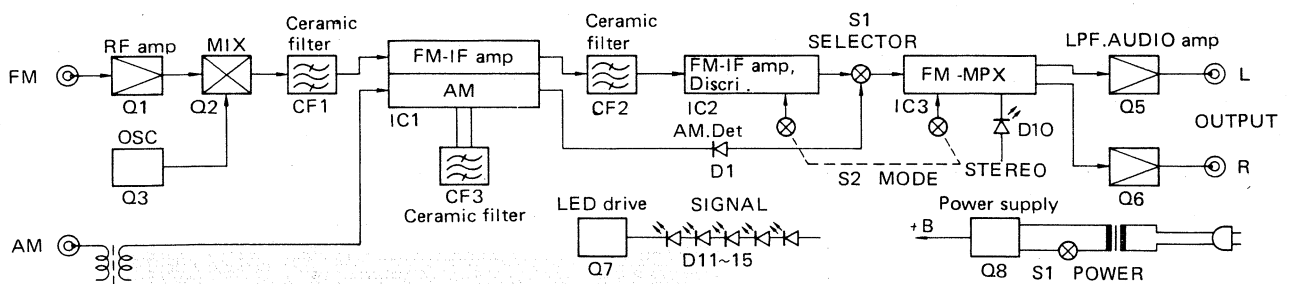
1. Fully close the variable capacitor.
2. Set the pulley (1) as illustrated and fix it with a screw.
3. Tie the end of the dial cord at the dial spring, giving a margin of about 10 cm. Hook the spring on the boss.
4. Give half a turn of the dial cord to the pulley (1) in the direction of "1" and wind it 2 turns around the dial shaft starting from its lower side. Then stretch the cord in the direction of "6".
5. Wind the cord 2 turns around the pulley (1) in the direction of "6" and starting from the upper side of the pulley. Rigidly tie it with the margin cord (provided as described in 3. above) and release the dial spring from the boss.
6. Mount the dial pointer in position as illustrated. This setting should be checked by receiving a suitable broadcast station actually.

EXPLODED VIEW

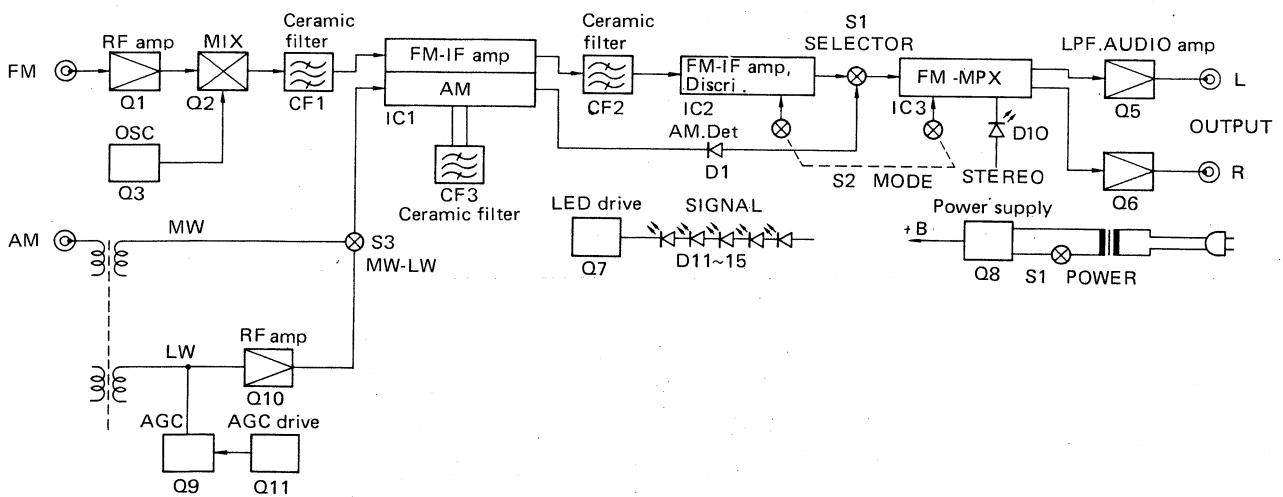


BLOCK DIAGRAM

(KT-400)



(KT-400L)



ADJUSTMENT/RÉGLAGES/ABGLEICH

TEST INSTRUMENTS

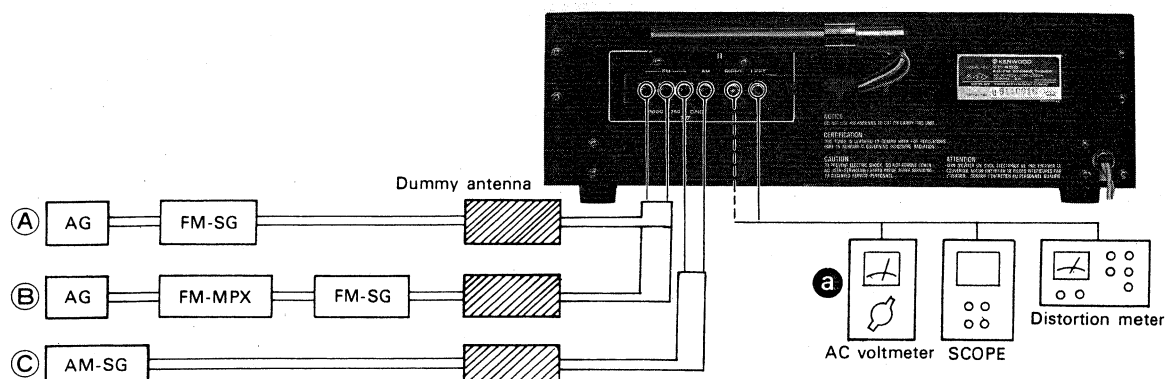
Oscilloscope
AM signal generator
FM signal generator
Audio generator
AC voltmeter
FM multiplex generator
Frequency counter
DC voltmeter
Distortion meter
Dummy antenna

APPAREILLAGE

Oscilloscope
Générateur MA
Générateur MF
Générateur audio fréquences
Voltmètre CA
Générateur multiplex stéréo
Compteur de fréquence
Voltmètre CC
Distorsiomètre
Antenne fictive

PRÜFINSTRUMENTE

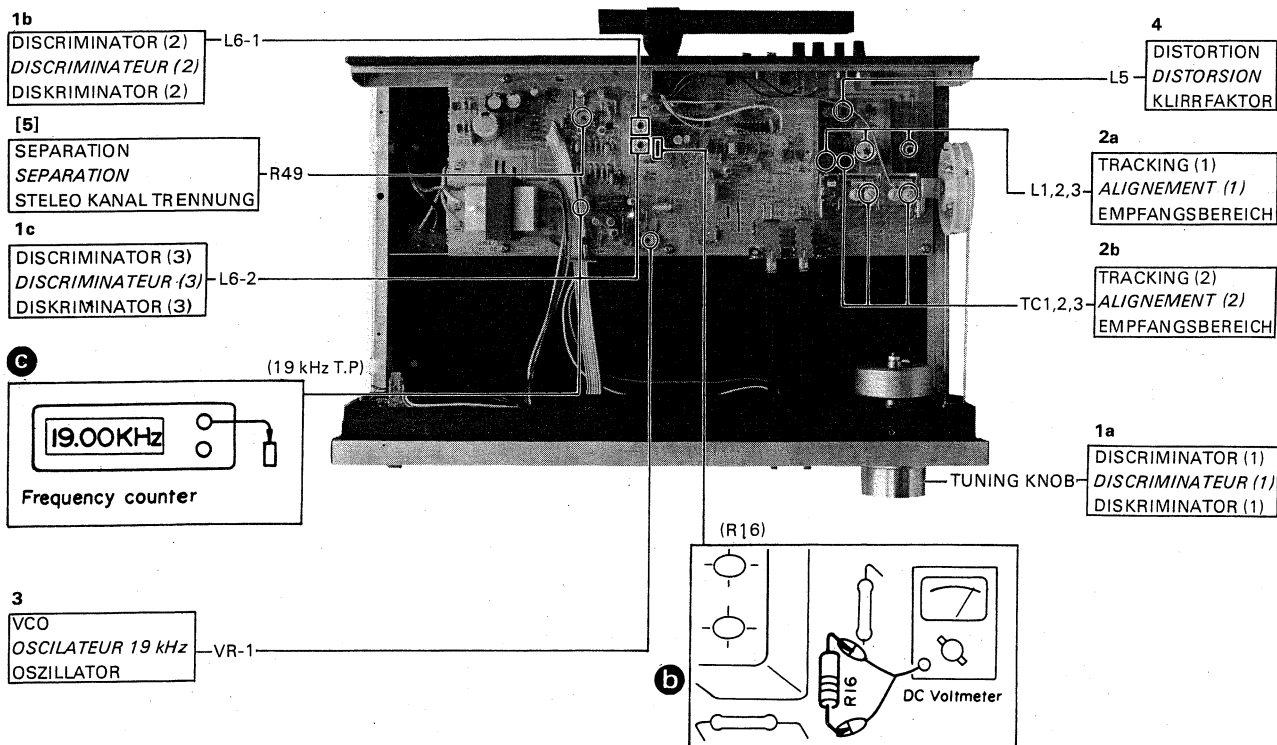
Oszilloskop
MW-Signalgenerator
UKW-Signalgenerator
NF-Signalgenerator
Wechselspannungsmesser
UKW-Multiplexgenerator
Frequenzzähler
Gleichspannungsmesser
Klirrfaktormesser
Antennennachbildung



FM

SECTION MF

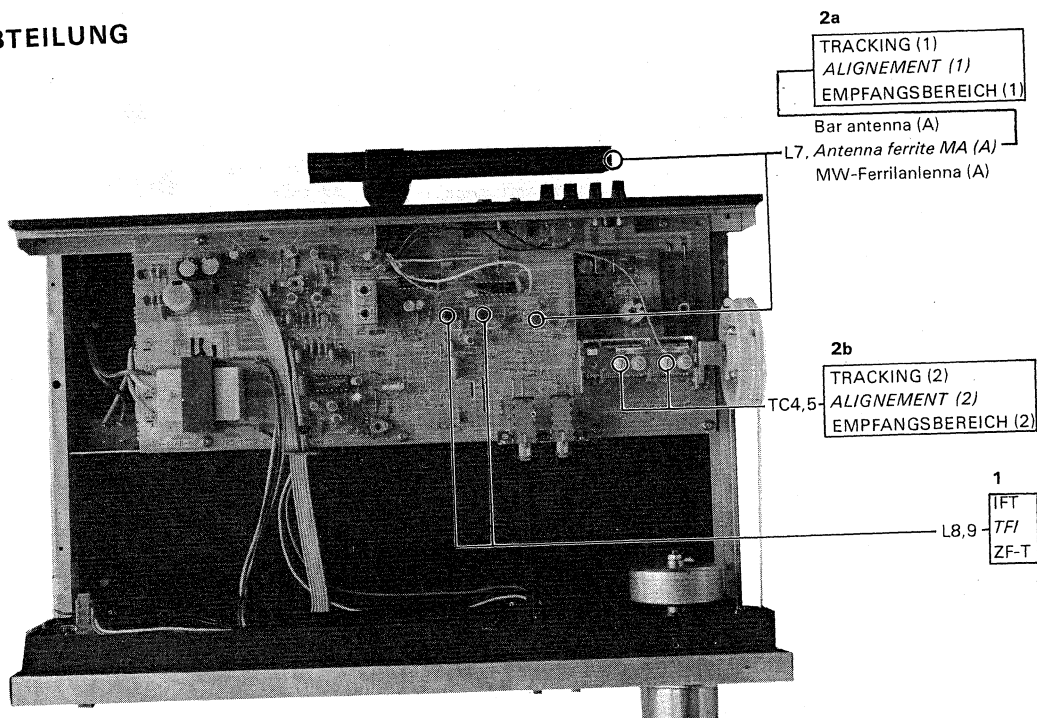
UKW-EMPFANGSABTEILUNG (KT-400, KT-400L)



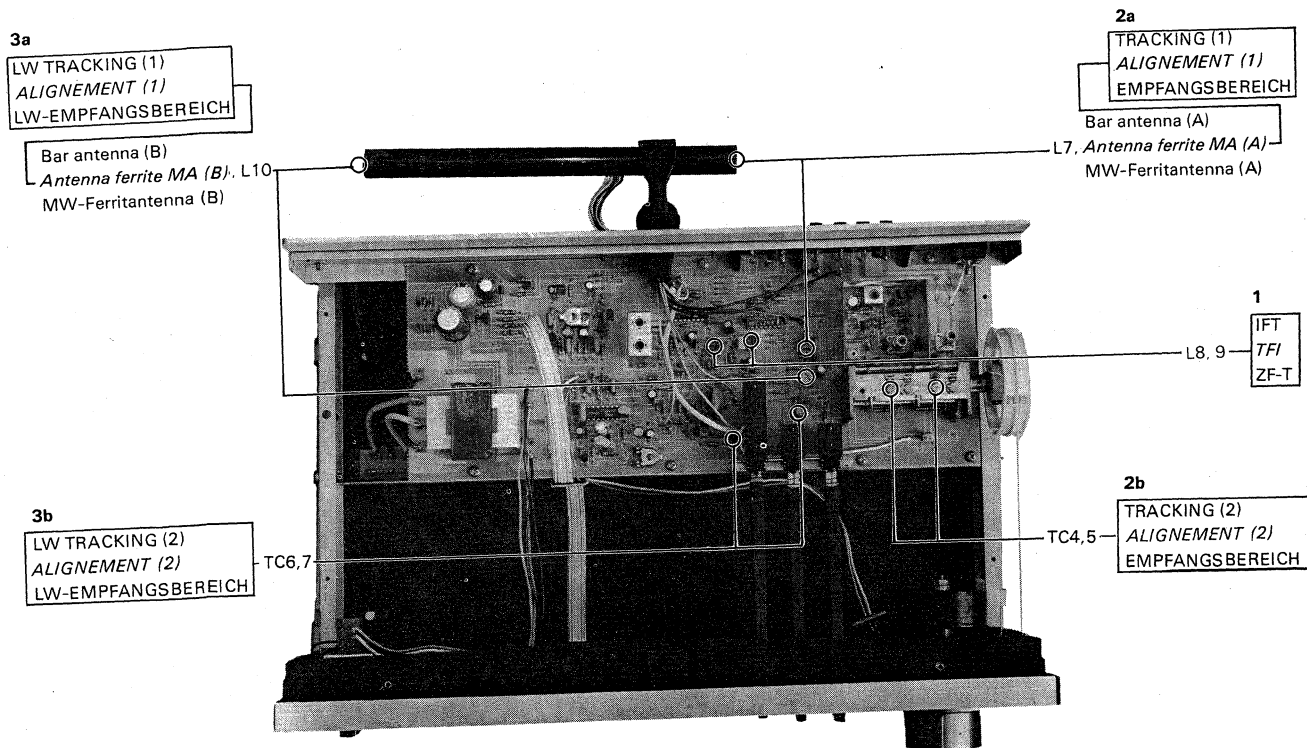
KT-400(L)

ADJUSTMENT/RÉGLAGES/ABGLEICH

AM
SECTION MA
MW-EMPfangSABTEILUNG
(KT-400)



(KT-400L)

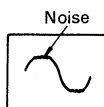


ADJUSTMENT

NO.	ALIGNMENT	TEST EQUIPMENTS		TUNER SETTING	OUTPUT INDICATOR	ADJUSTMENT POINTS	REMARKS
		CONNECTION	SETTING				
FM							
1a	DISCRIMI- NATOR (1)	Ⓐ	95 MHz 1 kHz, ±75 kHz (Dev)	FM-MONO 95 MHz	Ⓐ	—	*1
1b	DISCRIMI- NATOR (2)	- do -	95 MHz 1 kHz, ±75 kHz (Dev) 60 dB (ANT input)	FM-AUTO/MUTE 95 MHz	Ⓑ (R16)	L6-1	± 10 mV
1c	DISCRIMI- NATOR (3)	- do -	- do -	- do -	Ⓐ	L6-2	Minimum distortion
Repeat alignments "1a ~ 1c" several times.							
2a	TRACKING (1)	Ⓐ	90 MHz 1 kHz, ±75 kHz (Dev)	FM-MONO 90 MHz	Ⓐ	L1,2,3	Maximum deflection
2b	TRACKING (2)	- do -	106 MHz 1 kHz, ±75 kHz (Dev)	FM-MONO 106 MHz	- do -	TC1,2,3	- do -
Repeat alignments "2a, 2b" several times.							
3	VCO	Ⓐ	95 MHz 0 (Dev) 60 dB (ANT input)	FM-AUTO/MUTE 95 MHz	Ⓒ (19 kHz T.P.)	VR1	19 kHz ±50 Hz
4	DISTOR- TION	Ⓑ	95 MHz *2 1 kHz, ±68.25 kHz(Dev) SELECTOR: L + R 60 dB (ANT input)	- do -	Ⓐ	L5	Minimum distortion
[5] *3	SEPARATION	- do -	95 MHz 1 kHz (Mod) 68.25 kHz (Dev, under L + R position) 60 dB (ANT INPUT) SELECTOR: L or R	- do -	- do -	R49	Minimum crosstalk
AM (KT-400, KT-400L)							
1	IFT	Ⓒ	1,000 kHz 400 Hz, 30% Mod	AM 1,000 Hz	Ⓐ	L8,9	Maximum deflection
2a	TRACKING (1)	- do -	600 kHz 400 Hz, 30% Mod	AM 600 kHz	- do -	L7 Bar antenna(A)	- do -
2b	TRACKING (2)	- do -	1,400 kHz 400 Hz, 30% Mod	AM 1,400 kHz	- do -	TC4,5	- do -
Repeat alignments "2a, 2b" several times.							
AM-LW (KT-400L)							
3a	LW TRACK- ING (1)	Ⓒ	160 kHz 400 Hz, 30% Mod	AM-LW 160 kHz	Ⓐ	L10 Bar antenna(B)	Maximum deflection
3b	LW TRACK- ING (2)	- do -	340 kHz 400 Hz, 30% Mod	AM-LW 340 kHz	- do -	TC6,7	- do -
Repeat alignments "3a, 3b" several times.							

*1

Adjust the tuning knob so that the same amount of noise is observed at the top and bottom of the output waveform with a weak signal.



*2

Set deviation to ± 68.25 kHz with selector in L + R position.
Set deviation of pilot signal to 6.75 kHz (9%).

*3

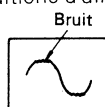
For E and T.

RÉGLAGES

N°	ALIGNEMENT	APPAREILLAGE		REGLAGE DU TUNER	INDICATEUR DE SORTIE	POINTS DE RÉGLAGES	REMARQUES
		RACCORDE- MENT	RÉGLAGE				
SECTION MF							
1a	DISCRIMI- NATEUR (1)	Ⓐ	95 MHz 1 kHz, ±75 kHz (Dév)	FM-MONO 95 MHz	Ⓐ	—	*1
1b	DISCRIMI- NATEUR (2)	- idem -	95 MHz 1 kHz, ±75 kHz (Dév) 60 dB (Entrée ANT)	FM-AUTO/MUTE 95 MHz	Ⓑ ^b (R16)	L6-1	±10 mV
1c	DISCRIMI- NATEUR (3)	- idem -	- idem -	- idem -	Ⓐ	L6-2	Distortion minimale
Répéter les points 1a ~ 1c plusieurs fois.							
2a	ALIGNEMENT (1)	Ⓐ	90 MHz 1 kHz, ±75 kHz (Dév)	FM-MONO 90 MHz	Ⓐ	L1,2,3	Déviati maximale
2b	ALIGNEMENT (2)	- idem -	106 MHz 1 kHz, ±75 kHz (Dév)	FM-MONO 106 MHz	- idem -	TC1,2,3	- idem -
Répéter les points 2a ~ 2b plusieurs fois.							
3	OSCILATEUR 19 kHz	Ⓐ	95 MHz 0 (Dév) 60 dB	FM-AUTO/MUTE 95 MHz	Ⓒ ^c (19 kHz T.P.)	VR1	19 kHz ±50 Hz
4	DISTOR- SION	Ⓑ	95 MHz *2 1 kHz (Mod) ±68,25 kHz (Dév) L + R (SELECTION) 60 dB	- idem -	Ⓐ	L5	Distorsion minimale
[5] *3	SEPARATION	- idem -	95 MHz 1 kHz (Mod) sur la position (L + R) 68,25 kHz (Dév) 60 dB (ENTREE ANT) L ou R	- idem -	- idem -	R49	Diaphonie minimale
SECTION MA (KT-400, KT-400L)							
1	TFI	Ⓒ	1.000 kHz 400 Hz, 30% (Mod)	AM 1.000 kHz	Ⓐ	L8,9	Déviati maximale
2a	ALIGNEMENT (1)	- idem -	600 kHz 400 Hz, 30% (Mod)	AM 600 kHz	- idem -	Antenna ferrite MA (A), L7	- idem -
2b	ALIGNEMENT (2)	- idem -	1.400 kHz 400 Hz, 30% (Mod)	AM 1.400 kHz	- idem -	TC4,5	- idem -
Répéter les points 2a ~ 2b plusieurs fois.							
SECTION MA (KT-400L)							
3a	ALIGNEMENT (1)	Ⓒ	160 kHz 400 Hz, 30% (Mod)	AM-LW 160 kHz	Ⓐ	Antenna ferrite MA (B), L10	Déviati maximale
3b	ALIGNEMENT (2)	- idem -	340 kHz 400 Hz, 30% (Mod)	AM-LW 340 kHz	- idem -	TC6,7	- idem -
Répéter les points 3a ~ 3b plusieurs fois.							

*1

Ajuster le bouton d'accord de façon que la même quantité du bruit puisse être observé au sommet et en bas de la forme d'onde de sortie sous des conditions d'alimentation de signal faible.



*2

Régler la déviation à $\pm 68,25$ kHz avec le sélecteur en position L + R (gauche + droite). Régler déviation du signal pilote à 6,75 kHz (9%).

*3

Pour E et T.

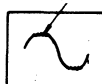
ABGLEICH

NR.	ABGLEICH	PRÜFEINRICHTUNG		TUNER EINSTELLUNG	AUSGANGS- ANZEIGE	EINSTELL- PUNKT	BEMERKUNGEN
		ANSCHLÜSSE	EINSTELLUNG				
UKW-EMPFANGSABTEILUNG							
1a	DISKRIMI- NATOR (1)	Ⓐ	95 MHz 1 kHz, ±75 kHz (Hub)	FM-MONO 95 MHz	Ⓐ	—	*1
1b	DISKRIMI- NATOR (2)	- dito -	95 MHz 1 kHz, ±75 kHz (Hub) 60 dB (Eingangs- signalpegel)	FM-AUTO/MUTE 95 MHz	Ⓑ ^(R16)	L6-1	±10 mV
1c	DISKRIMI- NATOR (3)	- dito -	- dito -	- dito -	Ⓐ	L6-2	Minimaler klirrfaktor
Abstimmungen "1a bis 1c" mehrere Male wiederholen.							
2a	EMPFANGS- BEREICH	Ⓐ	90 MHz 1 kHz, ±75 kHz (Hub)	FM-MONO 90 MHz	Ⓐ	L1,2,3	Maximaler Ausschlag
2b	EMPFANGS- BEREICH	- dito -	106 MHz 1 kHz, ±75 kHz (Hub)	FM-MONO 106 MHz	- dito -	TC1,2,3	- dito -
Abstimmungen „2a und 2b“ mehrere Male wiederholen.							
3	SPANNUNGS- GEREGELTER OSZILLATOR	Ⓐ	95 MHz 0 Hub 60 dB	FM-AUTO/MUTE 95 MHz	Ⓒ ^(19 kHz, T.P.)	VR1	19 kHz ±50 Hz
4	KLIRR- FAKTOR	Ⓑ	95 MHz *2 1 kHz, ±68,25 kHz(Hub) Wähler: L + R 60 dB	- dito -	Ⓐ	L5	Minimaler Klirrfaktor
[5] *3	STEREO KANAL TRENNUNG	- dito -	95 MHz 1 kHz, ±68,25 kHz (Hub bei L + R Stellung), 60 dB (Eingangssignalpegel) Wähler: L oder R	- dito -	- dito -	R49	Minimales Übersprechen
MW-EMPFANGSABTEILUNG (KT-400, KT-400L)							
1	ZF-T	Ⓒ	1.000 kHz 400 Hz, 30% Mod	AM 1.000 kHz	Ⓐ	L8,9	Maximaler Ausschlag
2a	EMPFANGS- BEREICH (1)	- dito -	600 kHz 400 Hz, 30% Mod	AM 600 kHz	- dito -	L7, MW- Ferritantenna (A)	- dito -
2b	EMPFANGS- BEREICH (2)	- dito -	1.400 kHz 400 Hz, 30% Mod	AM 1.400 kHz	- dito -	TC4,5	- dito -
Abstimmungen "2a und 2b" mehrere Male wiederholen.							
LW-EMPFANGSABTEILUNG (KT-400L)							
3a	LW- EMPFANGS- BEREICH (1)	Ⓒ	160 kHz 400 Hz, 30% Mod	AM-LW 160 kHz	Ⓐ	MW-Ferrit- antenna (B) L10	Maximaler Ausschlag
3b	LW- EMPFANGS- BEREICH (2)	- dito -	340 kHz 400 Hz, 30% Mod	AM-LW 340 kHz	- dito -	TC6,7	- dito -
Abstimmungen "3a und 3b" mehrere Male wiederholen.							

*1

Den Abstimmknop so einstellen, daß an der oberen und unteren Grenze der Ausgangswellenform bei schwachem Signal dasselbe Geräusch auftritt.

Geräusch



*2

Hub mit dem Wahlschalter auf L + R auf 68,25 kHz einstellen. Hub des Kontrollsignals auf 6,75 kHz (9%) einstellen.

*3

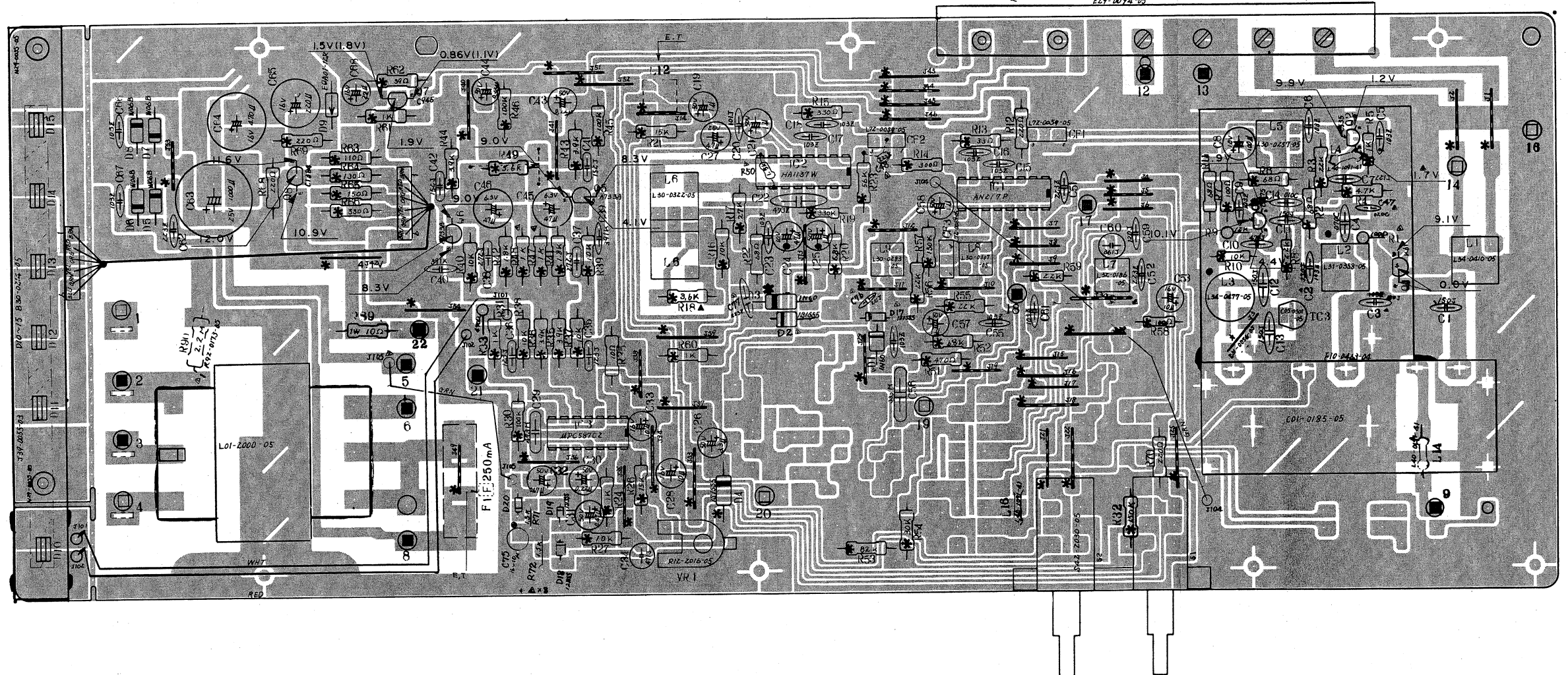
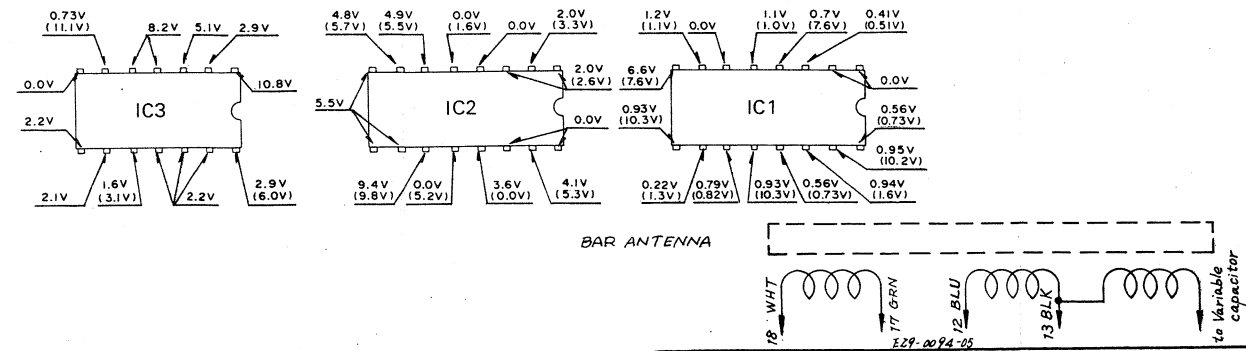
Für E und T.

KT-400(L) KT-400(L)

PC BOARD (KT-400)

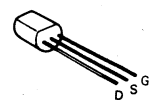
KT-400(L)

TUNER PCB ASS'Y (X05-1760-11, 0-51, 0-81, 2-71)
(Component side)

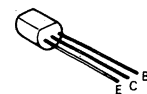


- | | | | |
|------|-----------------|------------|---------------------|
| Q1 | : 2SK61 | D1,3 | : IN60 |
| Q2 | : 2SC535 (B) | D2,4,16~20 | : 1S2076 |
| Q3 | : 2SC1675 | D5~8 | : W06B |
| Q5,6 | : 2SA733A (R,Q) | D9 | : WZ-115 |
| Q7 | : 2SC945 | D10~15 | : LED (B30-0214-05) |
| Q8 | : 2SC1384 | | |
| | | IC1 | : AN217P (BB) |
| | | IC2 | : HA1137W |
| | | IC3 | : μPC587C2 |

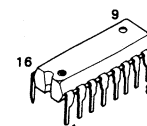
2SK61



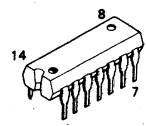
2SA733A
2SC535
2SC945
2SC1384
2SC1675



AN217
HA1137W



μPC587

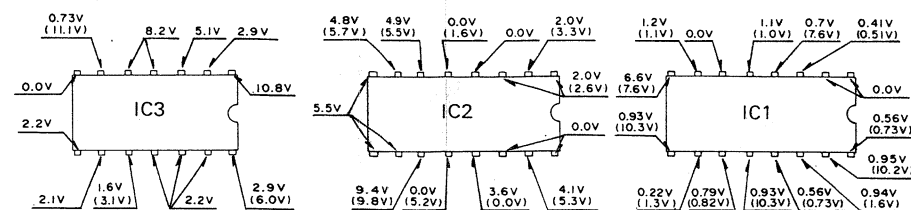


KT-400(L)

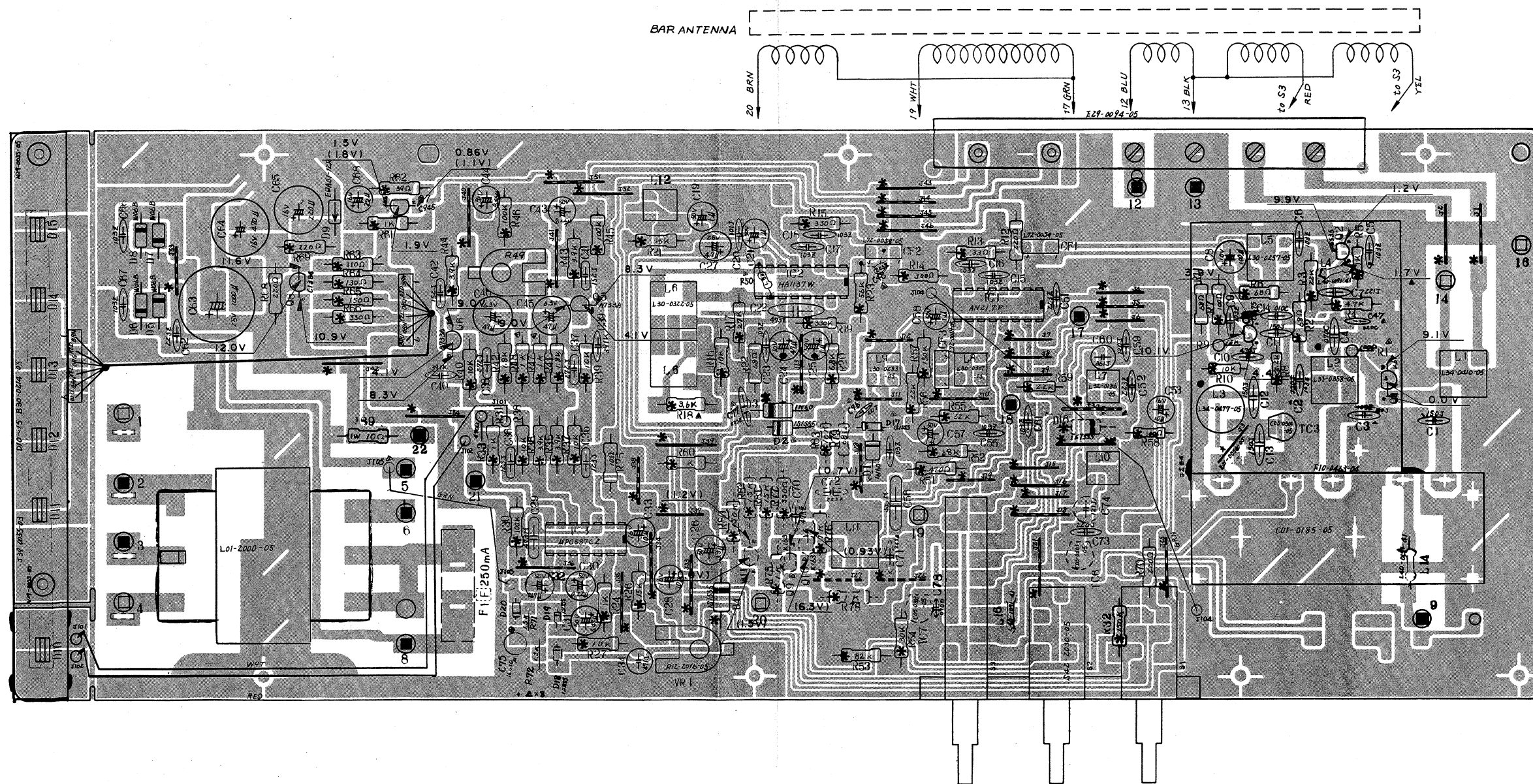
KT-400(L) KT-400(L)

PC BOARD (KT-400L)

TUNER PCB ASS'Y (X05-1762-72, 0-52)
(Component side)

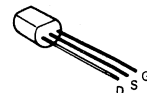


BAR ANTENNA

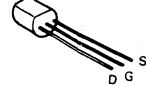


- | | | | |
|-------|-----------------|-------------|---------------------|
| Q1 | : 2SK61 | D1.3 | : 1N60 |
| Q2 | : 2SC5351 (B) | D2.4, 16~20 | : 1S2076 |
| Q3 | : 2SC1675 | D5~8 | : W06B |
| Q5.6 | : 2SA733A (R,Q) | D9 | : WZ-115 |
| Q7 | : 2SC945 | D10~15 | : LED (B30-0214-05) |
| Q8 | : 2SC1384 | | |
| Q9,10 | : 2SK163 (K) | IC1 | : AN217P (BB) |
| Q11 | : 2SA733A | IC2 | : HA1137W |
| | | IC3 | : μ PC587C2 |

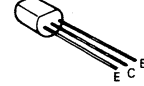
2SK61



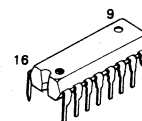
2SK163



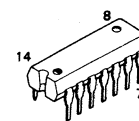
2SA733A
2SC535
2SC945
2SC1384
2SC1675

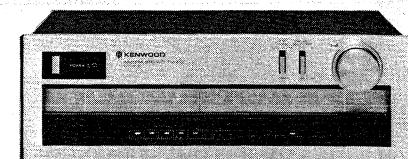
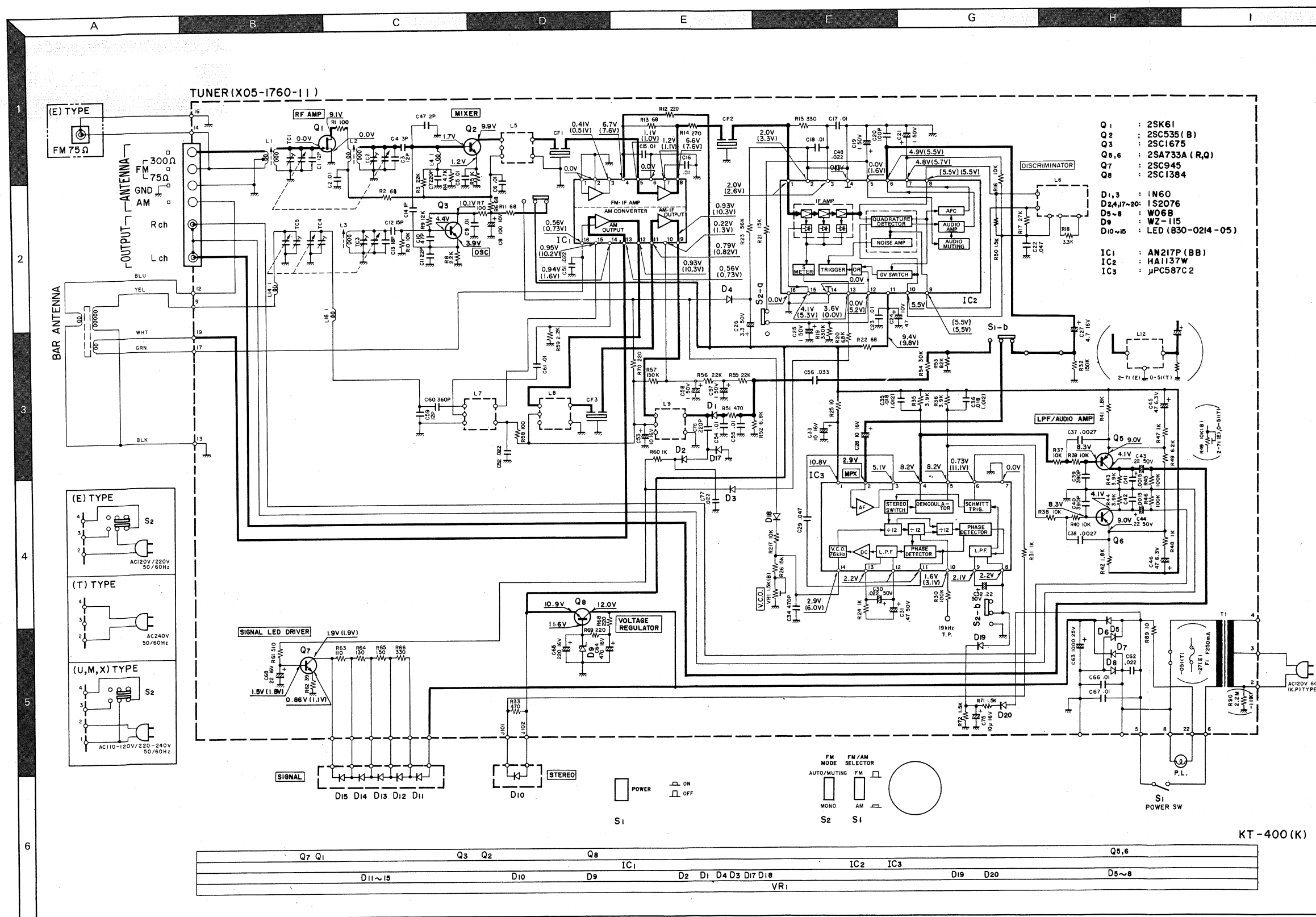


AN217
HA1137W



μ PC587

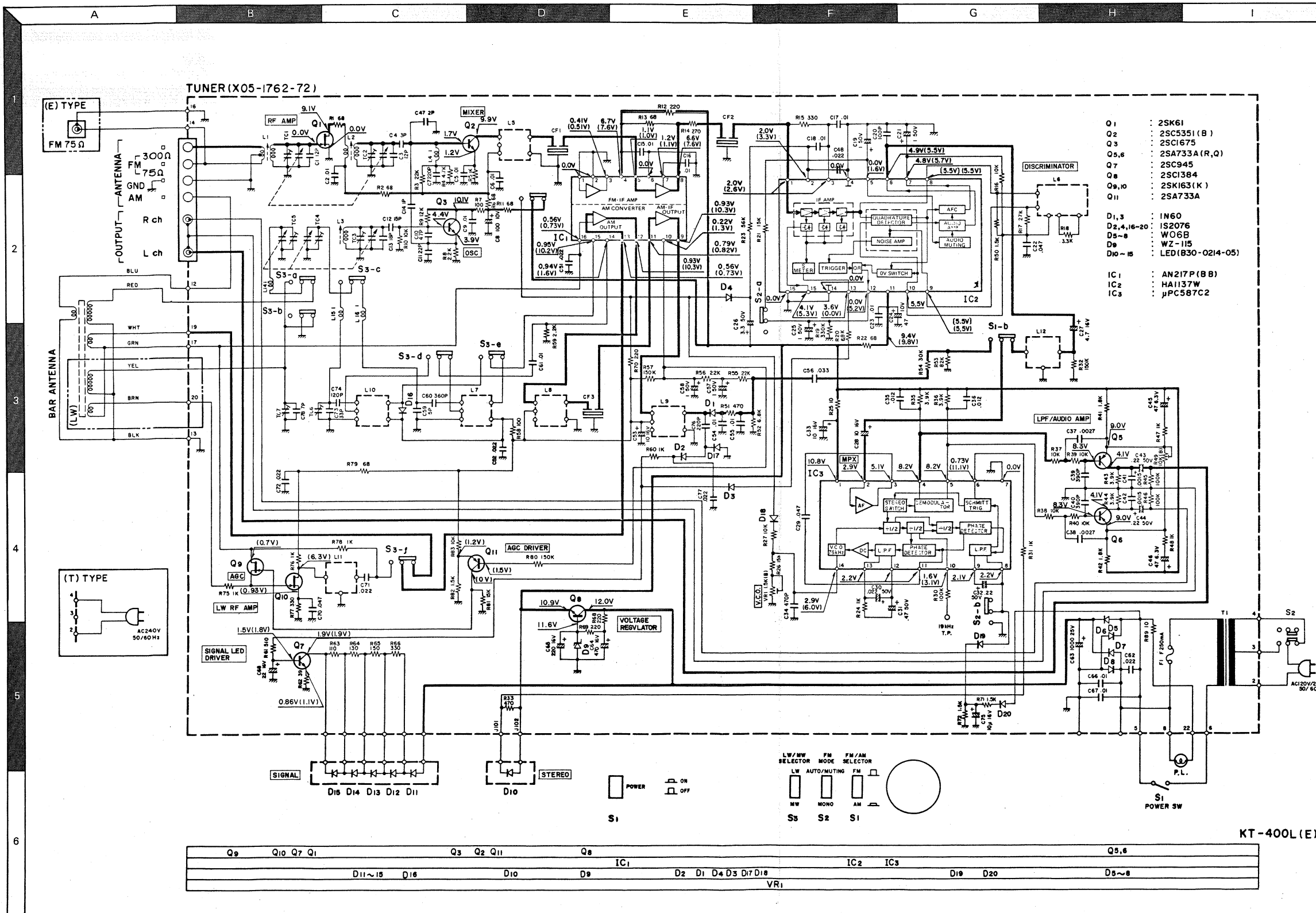
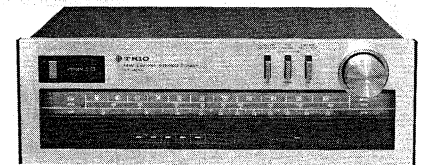




FM TUNER SECTION	
Usable Sensitivity	10.8 dBf (1.9 μ V)
50 dB Quieting Sensitivity	
(Mono)	17.2 dBf (4.0 μ V)
(Stereo)	37.2 dBf (40 μ V)
Signal to Noise Ratio	
(Mono)	71 dB
(Stereo)	68 dB
Total Harmonic Distortion	
(Mono)	0.15% at 100 Hz
	0.2% at 1,000 Hz
	0.35% at 6,000 Hz
	0.6% at 50 Hz
	~ 10,000 Hz
(Stereo)	0.3% at 100 Hz
	0.3% at 1,000 Hz
	0.35% at 6,000 Hz
	0.6% at 50 Hz
	~ 10,000 Hz
Frequency Response	30 to 15,000 Hz
	+ 0.5 dB, - 2 dB
Capture Ratio	1.5 dB
Alternate Channel Selectivity	77 dB
Spurious Response Ratio	80 dB
Image Response Ratio	47 dB
IF Response Ratio	95 dB
AM Suppression Ratio	60 dB
Stereo Separation	44 dB at 1,000 Hz
	35 dB at 50
	to 10,000 Hz
	30 dB at 15,000 Hz
Sub Carrier Product Ratio	38 dB
Antenna Impedance	300 ohms balanced
	and 75 ohms unbalanced
FM Frequency Range	88 MHz to 108 MHz
Output Level	
(1 kHz 100% Mod.)	0.8V/3.5k ohms
AM TUNER SECTION	
Usable Sensitivity	15 μ V
Signal to Noise Ratio	51 dB
Image Rejection	50 dB
Total Harmonic Distortion	0.5%
Output Level	
(400 Hz 30% Mod.)	0.3V/3.5k ohms
GENERAL	
Power Consumption	8 watts
Dimensions	W: 400 mm (15-3/4")
	H: 138 mm (5-7/16")
	D: 303 mm (11-15/16")
Net Weight	3.5 kg (7.7 lb)

Note: Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

DC voltage is measured with a 20 k Ω /V VOM
; FM STEREO 60 dB (ANT.)
(); AM 60 dB (ANT.)



FM TUNER SECTION

Sensitivity at 75 ohms
 Mono: S/N 26 dB, 40 kHz Dev. 0.9 μ V
 Stereo: S/N 46 dB, 46 kHz Dev. 25 μ V
 50 dB Quieting Sensitivity, Mono (IHF) 2.0 μ V
 Limiting Level
 -3 dB Point, 40 kHz Dev. 0.5 μ V
 Frequency Response 30 Hz ~ 15 kHz
 +0.5 dB, -2.0 dB

Total Harmonic Distortion
 Mono: 1 kHz, 40 kHz Dev. 0.15%
 Stereo: 1 kHz, 46 kHz Dev. 0.2%
 S/N Weighted (IEC-A)
 Mono: 40 kHz Dev., 1 mV Input 70 dB
 Stereo: 46 kHz Dev., 1 mV Input 64 dB
 S/N Ratio (IHF)
 Mono: 75 kHz Dev., 1 mV Input 71 dB
 Stereo: 75 kHz Dev., 1 mV Input 68 dB
 FM Stereo Separation: 1 mV Input (DIN)

250 Hz 40 dB
 1 kHz 40 dB
 6.3 kHz 38 dB
 12.5 kHz 30 dB
 Image Rejection Ratio 47 dB
 Selectivity
 300 kHz, 20 dB Input 70 dB
 IF Rejection Ratio 95 dB
 AM Suppression Ratio 60 dB
 Spurious Response Ratio 80 dB
 Capture Ratio 1.5 dB
 Pilot Tone 19 kHz 31 dB

AM TUNER SECTION

Sensitivity S/N 20 dB 15 μ V
 S/N Ratio: 1 mV Input 51 dB
 Image Rejection Ratio 50 dB

LW TUNER SECTION

Sensitivity S/N 20 dB 18 μ V
 S/N Ratio: 1 mV Input 48 dB
 Image Rejection Ratio 70 dB

GENERAL

Power Consumption 8W
 Dimensions W: 400 mm
 H: 138 mm
 D: 303 mm
 Weight (Net) 3.5 kg

Note:
 Kenwood follows a policy of continuous advancements in development.
 For this reason specifications may be changed without notice.

2SK61

2SK163

2SA733A
 2SC535
 2SC945
 2SC1384
 2SC1675

AN217
 HA1137W

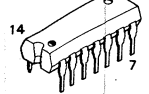
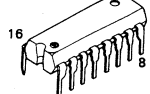
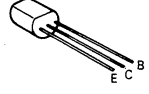
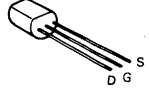
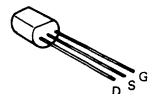
μ PC587

DC voltage is measured with a 20 k Ω /V VOM

; FM STEREO 60 dB (ANT.)

() : AM 60 dB (ANT.)

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PARTS LIST

See instructions at the end of the parts list.

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名/規格	Re- marks 備考	Ref. No. 参照番号	Parts No. 部品番号	Description 部品名/規格	Re- marks 備考
UNIT							
1 2B,3B	-	METALLIC FRAME		-	H10-1544-02	POLYSTYRENE FIXTURE	*
2 1B	-	REAR PANEL		-	H20-0417-04	COVER	
3 3A	-	BOTTOM PLATE		-	H25-0078-04	BAG 235x315	
4 2B	-	MOUNTING HARDWARE		-	H25-0148-04	BAG 110x230	
5 2B	-	SUB PANEL		24 3A	J02-0088-05	FOOT	K
-	351-0009-04	FIBER STICK AND STRING	*	24 3A	J02-0089-05	FOOT	PU
11 1A	A01-0368-03	METALLIC CABINET	*	24 3A	J02-0089-05	FOOT	MX
12 2A	A20-1568-02	FRONT PANEL	*K	24 3A	J02-0089-05	FOOT	ET
12 2A	A20-1568-02	FRONT PANEL	PU	25 1B	J19-0507-05	BAR ANTENNA HOLDER	
12 2A	A20-1568-02	FRONT PANEL	MX	26 1B	J41-0024-15	BUSHING	X
12 2A	A20-1568-02	FRONT PANEL	< >	26 1B	J41-0033-05	BUSHING	ET
12 2A	A20-1569-02	FRONT PANEL	<L>	26 1B	J41-0034-05	BUSHING	KP
12 2A	A20-1570-02	FRONT PANEL	< >	26 1B	J41-0034-05	BUSHING	UM
12 2A	A20-1571-02	FRONT PANEL	<L>	27 2A	K27-0118-04	KNOB (POWER)	*
-	B41-0219-04	CAUTION LABEL	K	28 3A	K27-0119-04	KNOB (MODE,SEL.)	*
-	B46-0055-20	WARRANTY CARD	P	29 2A	K29-0330-04	KNOB (TUNING)	*
-	B46-0060-00	WARRANTY CARD	T	-	L40-1091-41	INDUCTOR	<L> ET
-	B46-0061-20	WARRANTY CARD	K	30 2A,2B	N09-0293-05	SCREW (M2,6x14)	
-	B46-0062-20	WARRANTY CARD	U	31 2B	S31-2050-05	SLIDE SWITCH (P.V.SEL)	UM
-	B46-0063-00	WARRANTY CARD	U	31 2B	S31-2050-05	SLIDE SWITCH (P.V.SEL)	XE
-	B46-0064-10	WARRANTY CARD	X	32 1B	S40-2106-05	PUSH SWITCH (POWER)	
-	B50-3089-00	INSTRUCTION MANUAL	*K	-	T90-0202-05	FM ANTENNA	
-	B50-3089-00	INSTRUCTION MANUAL	U	33 1B	T90-0102-05	AM BAR ANTENNA	< > *
-	B50-3090-00	INSTRUCTION MANUAL	*P	33 1B	T90-0103-05	LW BAR ANTENNA	<L> *
-	B50-3090-00	INSTRUCTION MANUAL	MX	34 1B,2B	X05-1760-11	TUNER PCB ASSY	*K
-	B50-3091-00	INSTRUCTION MANUAL	< >	34 1B,2B	X05-1760-11	TUNER PCB ASSY	P
-	B50-3092-00	INSTRUCTION MANUAL	<L>	34 1B,2B	X05-1760-51	TUNER PCB ASSY	*T
-	B50-3093-00	INSTRUCTION MANUAL	*T	34 1B,2B	X05-1760-52	TUNER PCB ASSY	*T
-	B50-3094-00	INSTRUCTION MANUAL	*T	34 1B,2B	X05-1760-81	TUNER PCB ASSY	*U
-	B59-0018-00	INSTRUCTION PRINT	U	34 1B,2B	X05-1760-81	TUNER PCB ASSY	MX
13 1A	B03-0145-04	DRESSING PLATE	*	34 1B,2B	X05-1762-71	TUNER PCB ASSY	*E
14 2A	B10-0262-03	FRONT GLASS	*	34 1B,2B	X05-1762-72	TUNER PCB ASSY	*E
15 1A	B20-0459-03	DIAL CALIBRATION	< >				
15 1A	B20-0460-03	DIAL CALIBRATION	<L>	TUNER (X05-176)			
15 1A	B20-0460-03	DIAL CALIBRATION	<L>	D10 -15	B30-0214-05	LED (RED)	*
16 2A	B21-0040-03	DIAL POINTER	*	C1	C71-1712-05	CERAMIC 12PF J	
17 1B	B30-0215-05	LAMP	*	C2	C55-1710-38	CERAMIC 0.01UF Z	
C1	C55-1710-38	CERAMIC 0.01UF Z		C3	C71-1712-05	CERAMIC 12PF J	
18 3B	D15-0171-13	PULLEY (1)		C4	C71-1703-01	CERAMIC 3PF C	
19 2A,2B	D15-0172-04	PULLEY (2)		C5 16	C55-1710-38	CERAMIC 0.01UF Z	
20 2B	D20-0153-03	DIAL SHAFT	*	C7	C71-1722-15	CERAMIC 220PF J	
-	E30-0505-05	AUDIO CORD		C8	C24-1010-71	ELECTRO 100UF 10WV	
21 1B	E04-0004-05	RECEPTACLE (FM)	ET	C9	C55-1710-38	CERAMIC 0.01UF Z	
22 1B	E30-0181-05	POWER CORD	KP	C10	C66-1747-05	CERAMIC 47PF J	
22 1B	E30-0185-05	POWER CORD	X	C11	C66-1722-05	CERAMIC 22PF J	
22 1B	E30-0459-05	POWER CORD	E	C12	C60-1715-05	CERAMIC 15PF J	
22 1B	E30-0545-05	POWER CORD	UM	C13	C61-1715-05	CERAMIC 15RF J	
22 1B	E30-0587-05	POWER CORD	T	C14	C67-1701-01	CERAMIC 1PF C	
23 3B	G01-0045-24	COILED SPRING		C15 -18	C55-1710-38	CERAMIC 0.01UF Z	
-	H01-3104-04	CARTON BOX	< >	C19	C24-1710-51	ELECTRO 1UF 50WV	
-	H01-3106-04	CARTON BOX	*K	C20	C71-1710-15	CERAMIC 100PF J	
-	H01-3106-04	CARTON BOX	UM	C21	C24-1710-51	ELECTRO 1UF 50WV	
-	H01-3106-04	CARTON BOX	X	C22	C55-1747-38	CERAMIC 0.047UF Z	
-	H01-3107-04	CARTON BOX	*P	C23	C55-1710-38	CERAMIC 0.01UF Z	
-	H01-3108-04	CARTON BOX	< >	C24	C24-1047-61	ELECTRO 47UF 10WV	
-	H01-3109-04	CARTON BOX	<L>	C25	C24-1710-51	ELECTRO 1UF 50WV	
-	H01-3110-04	CARTON BOX	<L>	C26	C24-1733-51	ELECTRO 3.3UF 50WV	
				C27	C24-1447-51	ELECTRO 4.7UF 25WV	
				C28	C24-1210-61	ELECTRO 10UF 16WV	
				C29	C46-1747-35	MYLAR 0.047UF M	

Symbol < > is in use only for "KT-400", <L> is only for "KT-400 (L)", others are for both "KT-400" & "KT-400 (L)".

KT-400(L)

PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考	Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
C30	C25-1722-47	LL-ELEC 0.22UF 50WV		L14	L40-1091-41	INDUCTOR	
C31	C25-1747-47	LL-ELEC 0.47UF 50WV		L15	L40-1091-41	INDUCTOR	<L> ET
C32	C24-1710-51	ELECTRO 1UF 50WV		L16	L40-1091-41	INDUCTOR	
C33	C24-1210-61	ELECTRO 10UF 16WV		T1	L01-2001-05	POWER TRANSFORMER	*K P
C34	C47-1747-15	POLYSTY 470PF J		T1	L01-2001-05	POWER TRANSFORMER	
C35 ,36	C46-1712-35	MYLAR 0.012UF J	ET	T1	L01-2007-05	POWER TRANSFORMER	*U
C35 ,36	C46-1718-35	MYLAR 0.018UF J	KP	T1	L01-2007-05	POWER TRANSFORMER	MX
C35 ,36	C46-1718-35	MYLAR 0.018UF J	UM	T1	L01-2007-05	POWER TRANSFORMER	T
C35 ,36	C46-1718-35	MYLAR 0.018UF J	X	T1	L01-2008-05	POWER TRANSFORMER	*E
C37 ,38	C46-1727-25	MYLAR 0.0027UF J		R11	R43-1268-05	FL-PROOF RD68 J 2E	
C39 ,40	C52-1739-16	CERAMIC 390PF K		R12	R43-1222-15	FL-PROOF RD220 J 2E	
C41 ,42	C46-1715-25	MYLAR 0.0015UF J		R22	R43-1268-05	FL-PROOF RD68 J 2E	
C43 ,44	C25-1722-47	LL-ELEC 0.22UF 50WV		R25	R43-1210-05	FL-PROOF RD10 J 2E	
C45 ,46	C24-0847-61	ELECTRO 47UF 6.3WV		R49	R12-3030-05	TRIMMING POT. 10K	ET
C51 ,52	C55-1722-38	CERAMIC 0.022UF Z		R70	R43-1222-15	FL-PROOF RD220 J 2E	
C53	C24-1210-61	ELECTRO 10UF 16WV		R89	R47-5410-05	FL-PROOF RS10 J 3A	
C54 ,55	C55-1710-38	CERAMIC 0.01UF Z		VR1	R12-2016-05	TRIMMING POT. 5K	
C56	C46-1733-35	MYLAR 0.033UF M		S1 ,2	S42-2030-05	PUSH SWITCH	< >
C57 ,58	C24-1710-51	ELECTRO 1UF 50WV		S1 -3	S42-3036-05	PUSH SWITCH	<L> ET
C59	C71-1705-01	CERAMIC 5PF C <L>	ET	D1	V11-0051-05	1N60	
C59	C71-1712-05	CERAMIC 12PF J < >		D2	V11-0271-05	1S2076	
C60	C48-1736-15	POLYSTY 360PF J		D3	V11-0051-05	1N60	
C61	C55-1710-38	CERAMIC 0.01UF Z		D4	V11-0271-05	1S2076	
C62	C55-1722-38	CERAMIC 0.022UF Z		D5 -8	V11-0295-05	W068	
C63	C24-1410-81	ELECTRO 1000UF 25WV		D9	V11-0387-05	EQA01-12(R)	
C64	C24-1247-71	ELECTRO 470UF 16WV		D16	V11-0271-05	1S2076	<L> ET
C65	C24-1222-71	ELECTRO 220UF 16WV		D17	V11-0051-05	1N60	
C66 ,67	C55-1710-38	CERAMIC 0.01UF Z		D18 -20	V11-0271-05	1S2076	
C68	C24-1222-61	ELECTRO 22UF 16WV		IC1	V30-0270-20	AN217P(BB)	
C70	C55-1747-38	CERAMIC 0.047UF Z		IC2	V30-0133-05	HA1137L	
C71 ,72	C55-1722-38	CERAMIC 0.022UF Z <L>	ET	IC3	V30-0434-10	UPC587C2	
C73	C71-1722-05	CERAMIC 22PF J < >		Q1	V09-0124-10	2SK61	
C73	C71-1733-05	CERAMIC 33PF J <L>	ET	Q2	V03-0098-05	2SC535(B)	
C74	C47-1712-15	POLYSTY 120PF J		Q3	V03-1675-00	2SC1675	*
C78	C71-1707-02	CERAMIC 7PF D <L>	ET	Q5 ,6	V01-0733-30	2SA733(A)(R,Q)	
TC3	C05-0301-05	TRIMMER CAP. 6PF	*	Q7	V03-0297-05	2SC945	
TC6 ,7	C05-0303-05	TRIMMER CAP. 20PF <L>	ET	Q8	V03-1384-20	2SC1384	
VC	C01-0221-05	VARIABLE CAPACITOR	*	Q9 ,10	V09-0144-90	2SK163(K)	<L> ET
-	E29-0094-05	TERMINAL BORAD		Q11	V01-0733-90	2SA733(A)	<L> ET
-	F05-2515-05	FUSE 0.25A	ET				
-	J13-0054-05	FUSE HOLDER	ET				
CF1 ,2	L72-0059-05	CERAMIC FILTER (FM)	KP				
CF1 ,2	L72-0059-05	CERAMIC FILTER (FM)	UM				
CF1 ,2	L72-0059-05	CERAMIC FILTER (FM)	X				
CF1 ,2	L72-0074-05	CERAMIC FILTER (FM)	ET				
CF3	L72-0069-05	CERAMIC FILTER (AM)					
L1	L31-0361-05	RF COIL (FM)	*				
L2	L31-0449-05	RF COIL (FM)					
L3	L32-0187-05	OSC COIL (FM)					
L4	L40-1091-41	INDUCTOR					
L5	L30-0257-05	IFT (FM)					
L6	L30-0322-05	IFT (FM)					
L7	L32-0186-05	OSC COIL (AM-MW)					
L8	L30-0307-05	IFT (AM)					
L9	L30-0283-05	IFT (AM)					
L10	L32-0237-05	OSC COIL (AM-LW) <L>	*E				
L10	L32-0237-05	OSC COIL (AM-LW) <L>	T				
L11	L79-0119-05	FILTER (LW) <L>	*E				
L11	L79-0119-05	FILTER (LW) <L>	T				
L12	L79-0123-05	FILTER (LW) <L>	ET				

PARTS LIST

INSTRUCTION FOR PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
-	351-0009-04	FIBER STICK AND STRING	*
② 11 1A	A01-0368-03	METALLIC CABINET	③
① 12 2A	A20-1568-02	FRONT PANEL	*K ④
12 2A	A20-1568-02	FRONT PANEL	PU
12 2A	A20-1568-02	FRONT PANEL	MX
12 2A	A20-1568-02	FRONT PANEL	E ⑤
12 2A	A20-1569-02	FRONT PANEL	<L> *E
12 2A	A20-1570-02	FRONT PANEL	< > *T
12 2A	A20-1571-02	FRONT PANEL	<L> *T
⑥ R70	R43-1222-15	FL-PROOF RD220 J 2E	⑦
RE9	R47-5410-05	FL-PROOF RS10 J 3A	
VR1	R12-2016-05	TRIMMING POT. 5K	
S1 ②	S42-2030-05	PUSH SWITCH	< >
S1 ③	S42-3036-05	PUSH SWITCH	<L> ET

* Abbreviations common to capacitors and resistors.

C $\pm 0.25\text{pF}$ (Used for capacitors only)

D $\pm 0.5\text{pF}$ (Used for capacitors only)

F $\pm 1\%$

G $\pm 2\%$

J $\pm 5\%$

K $\pm 10\%$

M $\pm 20\%$

Z $+ 80\%, - 20\%$ (Used for capacitors only)

P $+ 100\%, - 0\%$ (Used for capacitors only)

⑨ Resistors RD (carbon composition resistors) are not listed in the parts list. For values, refer to the schematic diagram.

① Exploded view drawing No.

② Position in exploded view.

③ Symbol of new parts.

④ Area to which parts are shipped. Example: A20-1568-02 is the parts No. of FRONT PANEL ASS'Y for the "K" type products (for USA).

When this column is blank, it means that the same type of parts (same parts No.) are used for the products shipped to all areas.

⑤ < > is in use for "KT-400", <L> for "KT-400L (E, T)".

⑥ Reference No. in schematic diagram.

⑦ Abbreviation of "Flame proof metal oxide film resistor". All capacitors and resistors are listed using abbreviations.

⑧ Abbreviations

* Abbreviations of capacitors (Parts No. with initial letter "C").

ELECTRO Electrolytic capacitor

LL-ELEC Low leak electrolytic capacitor

NP-ELEC Non-pole electrolytic capacitor

MICA Mica capacitor

POLYSTY Polystyrene capacitor

MYLAR Mylar capacitor

CERAMIC Ceramic capacitor

TANTAL Tantalum capacitor

MF Metallized film capacitor

OIL Oil capacitor

The unit "UF" is used in lieu of " μF ".

* Abbreviations of resistors (Parts No. with initial letters "R").

RC Carbon composition resistor

RD Carbon film resistor

FL-PROOF RD Flame-proof carbon film resistor

RW Wire wound power resistor

FL-PROOF RS Flame-proof metal oxide film resistor

RN Metal film resistor

2B Rated wattage 1/8W

2E Rated wattage 1/4W

2H Rated wattage 1/2W

3A Rated wattage 1W

3D Rated wattage 2W

3F Rated wattage 3W

3G Rated wattage 4W

3H Rated wattage 5W

All resistor values are indicated with the unit (Ω) omitted.